

Claim 28 (four times amended):

E1
SUB
1:1

A method of using a target binding assembly (TBA) wherein said TBA comprises a plurality of nucleic acid recognition units wherein each of said nucleic acid recognition units binds to a specific nucleic acid sequence on a target double stranded nucleic acid molecule; and wherein the combined binding affinity of said plurality of nucleic acid recognition units is such that said TBA specifically binds to the target double stranded nucleic acid molecule but does not bind to non-target molecules; and wherein said method comprises administering to a patient a therapeutically or prophylactically effective amount of said TBA, or nucleic acid which codes for and produces said TBA, such that the TBA binds a target double stranded nucleic acid molecule to achieve a desired prophylactic or therapeutic result.

Claim 49 (amended):

E2

A method of assembling a multimeric target binding assembly (TBA) *in vivo* or *in situ* which comprises introducing components of said multimeric TBA, or nucleic acid which codes for and produces said TBA components, into a cell, said components each comprising a nucleic acid recognition unit such that upon proximal binding via the nucleic acid recognition unit of each component to a specific nucleic acid sequence, the components assemble into a multimeric TBA; wherein the combined binding affinity of said components is such that said assembled multimeric TBA specifically binds to a target double stranded nucleic acid molecule but does not bind to non-target molecules.

Please add the following new claims:

52. The method, according to claim 28, wherein said nucleic acid recognition units are nucleic acid binding proteins.

53. The method, according to claim 28, wherein said nucleic acid recognition units are joined by a linker sequence, an assembly sequence, or an asymmetry sequence.

54. The method, according to claim 28, wherein said TBA has one or more attached nuclear localization signal(s).

55. The method, according to claim 49, wherein said TBA is directed to the nucleus by one or more attached nuclear localization signal(s).

56. The method, according to claim 52, wherein said nucleic acid recognition units are selected from the group consisting of the DNA-binding portions of NF-kB, NF-IL6, NF-AT, rel, TBP, the papilloma virus' E2 protein, sp1, inactive restriction enzymes, antibodies, and the repressors cro and CI from bacteriophage lambda.

57. The method, according to claim 56, wherein one of said nucleic acid recognition units comprises a DNA-binding portion of NF-kB.

58. The method, according to claim 57, wherein said TBA further comprises an sp1 DNA binding portion.

59. The method, according to claim 28, wherein the binding affinity of at least one of said nucleic acid recognition units is downregulated compared to the wildtype molecule.

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Serial No. 08/860,844

60. The method, according to claim 28, wherein the sequence to which each nucleic acid recognition unit binds is at least 4 nucleotides.

61. The method, according to claim 60, wherein the sequence is at least 8 nucleotides.
